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An exploration of selected transitivity and conjunctive relationships among the enactive, iconic, and symbolic modes of representation. 4: 113–15, Mar. 1973.

INTERACTION

The interaction of three levels of aptitude determined by a teach-test procedure with two treatments related to area. 4: 271–78, Nov. 1973.
A model of classroom discourse for use in conducting aptitude-treatment interaction studies. 4: 161–69, May 1973.

LEARNING

An assessment of a selected set of Piagetian-derived operators for the generation of effective learning heirarchies. 4: 118–21, Mar. 1973
The consistency of strategies in the learning of mathematical structures 3: 132-40, May 1972
Definitions and examples as feedback in a CAI stimulus-centered mathematics program 3: 113–22, Mar 1972.
The effect of an advance organizer, cognitive set, and post organizer on the learning and retention of written materials. 4: 68–76, Mar. 1973.
The effect of organizers and knowledge of behavioral objectives on learning a mathematical concept. 4: 76–84, Mar. 1973.
The effects on transfer of training of constant versus varied training, group size, and ability level, in elementary school mathematics. 4: 20–25, Jan. 1973.
An exploration of the effect of selected sequence variables on student choice in the use of algorithms. 4: 115–18, Mar. 1973.
An exploration of selected relationships among the enactive, iconic, and symbolic modes of representation. 4: 104–5, Mar. 1973.
An exploration of selected relationships among the enactive, iconic, and symbolic modes of representation. 4: 94–103, Mar. 1973.
An exploration of selected transitivity and conjunctive relationships among the enactive, iconic, and symbolic modes of representation. 4: 113–15, Mar. 1973.
An exploration of transitivities formulated from a set of Piagetian-derived operations and their implications in traversing learning hierarchies. 4: 121–23, Mar. 1973.
An in-depth exploration of the role of iconic representations in the study of congruence of triangles. 4: 105–10, Mar. 1973.
Inductive and deductive learning styles in junior high school mathematics: An exploratory study. 3: 239–47, Nov. 1972.
Intellectual growth and understanding mathematics. 3: 164–82, May 1972.
Performance of kindergarten children on transitivity of three matching relations. 3: 141–54, May 1972.
The relative effectiveness of a symbolic and a concrete model in learning a selected mathematical principle. 3: 233–38, Nov. 1972.
Retention of probability concepts: A pilot study into the effects of mastery learning with sixth-grade students. 4: 26–32, Jan. 1973.
A study of the ability of school pupils to perceive and identify the plane sections of selected solid figures. 4: 132–40, May 1973.
The symmetric property of the equality relation and young children's ability to solve open addition and subtraction sentences. 4: 45–56, Jan. 1973.
Toward a theory of sequencing: An integrated program of research. 4: 85–125.
Validating learning hierarchies for sequencing mathematical tasks in elementary school mathematics. 4: 141–51, May 1973.

MANIPULATIVE MATERIALS

Comments on the effect of activity-oriented instruction. 3: 183–85, May 1972.
A comparison of initially teaching division employing the distributive and Greenwood algorithms with the aid of a manipulative material. 4: 197–204, Nov. 1973.
The relative effectiveness of a symbolic and a concrete model in learning a selected mathematical principle. 3: 233–38, Nov. 1972.
Representational modes as they interact with cognitive development and mathematical concept acquisition of the retarded to promote new mathematical learning. 3: 43–50, Jan. 1972.
A study of the ability of school pupils to perceive and identify the plane sections of selected solid figures. 4: 132–40, May 1973.

NEEDED RESEARCH

Educational research in mathematics at the University of Wisconsin Research and Development Center for Cognitive Learning. 4: 243–50, Nov. 1973.
The theoretical model and a synopsis of the first two years of the research program. 4: 85–93, Mar. 1973.

NUMBER CONCEPTS AND SYSTEMS

A comparison of initially teaching division employing the distributive and Greenwood algorithms with the aid of a manipulative material. 4: 197–204, Nov. 1973.
Longitudinal evaluation of mathematical computational abilities of New Hampshire's eighth and tenth graders, 1963–1967. 3: 59–64, Jan. 1972.
Performance of kindergarten children on transitivity of three matching relations. 3: 141–54, May 1972.
The relative effectiveness of two different instructional sequences designed to teach the addition and subtraction algorithms. 4: 251–62, Nov. 1973.
The symmetric property of the equality relation and young children's ability to solve open addition and subtraction sentences. 4: 45–56, Jan. 1973.

OBJECTIVES

The effect of an advance organizer, cognitive set, and post organizer on the learning and retention of written materials. 4: 68–76, Mar. 1973.
The effect of organizers and knowledge of behavioral objectives on learning a mathematical concept. 4: 76–84, Mar. 1973.
The effect of triangle-pair configuration variation on achievement of selected classes of instructional objectives in plane geometry. 4: 110–13, Mar. 1973.

PIAGETIAN RESEARCH

An assessment of a selected set of Piagetian-derived operators for the generation of effective learning hierarchies 4: 118–21, Mar. 1973.
Equivalence and order relations as interrelated by four- and five-year-old children. 3: 77–88, Mar. 1972.
An exploration of transitivities formulated from a set of Piagetian-derived operations and their implications in traversing learning hierarchies. 4: 121–23, Mar. 1973.
Intellectual growth and understanding mathematics. 3: 164–82, May 1972.
A study of the ability of school pupils to perceive and identify the plane sections of selected solid figures. 4: 132–40, May 1973.

PRESCHOOL MATHEMATICS

Equivalence and order relations as interrelated by four- and five-year-old children. 3: 77–88, Mar. 1972.

PROBLEM SOLVING

Computer-assisted problem solving in school mathematics. 3: 99–112, Mar. 1972.
An exploration of the effect of selected sequence variables on student choice in the use of algorithms. 4: 115–18, Mar. 1973.
Individualized instruction in problem solving in elementary school mathematics. 4: 6–19, Jan. 1973.
Inductive and deductive learning styles in junior high school mathematics: An exploratory study. 3: 239–47, Nov. 1972.

PROOFS AND LOGIC

A formative development of an elementary school unit on proof. 4: 57–63, Jan. 1973.
Ways mathematics teachers help students organize knowledge. 3: 21–31, Jan. 1972.

RESEARCH CRITIQUES

Comments on the effect of activity-oriented instruction. 3: 183–85, May 1972.
Educational theory testing: A reply to Holz. 3: 186–88, May 1972.
A reply to Kulm. 4: 190–92, May 1973.
Some problems in a study of CAI feedback. 4: 187–89, May 1973.
Some remarks on Levine's study of attitudes. 4: 126–28, Mar. 1973.

RESEARCH METHODOLOGY

Comments on the effect of activity-oriented instruction. 3: 183–85, May 1972.
Educational research in mathematics at the University of Wisconsin Research and Development Center for Cognitive Learning. 4: 243–50, Nov. 1973.
Educational theory testing: A reply to Holz. 3: 186–88, May 1972.
A reply to Kulm. 4: 190–92, May 1973.
Some problems in a study of CAI feedback. 4: 187–89, May 1973.
Some remarks on Levine's study of attitudes. 4: 126–28, Mar. 1973.
The theoretical model and a synopsis of the first two years of the research program. 4: 85–93, Mar. 1973.

RESEARCH REVIEWS

Educational research in mathematics at the University of Wisconsin Research and Development Center for Cognitive Learning. 4: 243–50, Nov. 1973.
Intellectual growth and understanding mathematics. 3: 164–82, May 1972.
Research on mathematics education (K–12) reported in 1971. 3: 196–232, Nov. 1972.
Research on mathematics education (K–12) reported in 1972. 4: 205–42, Nov. 1973.

RETENTION

The effect of an advance organizer, cognitive set, and post organizer on the learning and retention of written materials. 4: 68–76, Mar. 1973.
The effect of organizers and knowledge of behavioral objectives on learning a mathematical concept. 4: 76–84, Mar. 1973.
The effectiveness of discovery and expository methods in the teaching of fourth-grade mathematics. 4: 33–44, Jan. 1973.
Retention of probability concepts: A pilot study into the effects of mastery learning with sixth-grade students. 4: 26–32, Jan. 1973.
Validating learning hierarchies for sequencing mathematical tasks in elementary school mathematics. 4: 141–51, May 1973.

SECONDARY SCHOOL MATHEMATICS

Computer-assisted problem solving in school mathematics. 3: 99–112, Mar. 1972.
The effects of teaching Euclidean geometry via transformations on student achievement and attitudes in tenth-grade geometry. 3: 249–59, Nov. 1972.
Inductive and deductive learning styles in junior high school mathematics: An exploratory study. 3: 239–47, Nov. 1972.
Research on mathematics education (K–12) reported in 1971. 3: 196–232, Nov. 1972.
Research on mathematics education (K–12) reported in 1972. 4: 205–42, Nov. 1973.

SEQUENCING

An assessment of a selected set of Piagetian-derived operators for the generation of effective learning hierarchies. 4: 118–21, Mar. 1973.
An exploration of the effect of selected sequence variables on student choice in the use of algorithms. 4: 115–18, Mar. 1973.
An exploration of transitivities formulated from a set of Piagetian-derived operations and their implications in traversing learning hierarchies. 4: 121–23, Mar. 1973.
The relative effectiveness of two different instructional sequences designed to teach the addition and subtraction algorithms. 4: 251–62, Nov. 1973.
The theoretical model and a synopsis of the first two years of the research program. 4: 85–93, Mar. 1973.

Toward a theory of sequencing: An integrated program of research. 4: 85–125, Mar. 1973.
Validating learning hierarchies for sequencing mathematical tasks in elementary school mathematics. 4: 141–51, May 1973.

STUDENTS

Attitudes of elementary school pupils and their parents toward mathematics and other subjects of instruction. 3: 51–58, Jan. 1972.
The effects of test anxiety and success/failure on mathematics performance in grade eight. 4: 152–60, May 1973.
Inductive and deductive learning styles in junior high school mathematics: An exploratory study. 3: 239–47, Nov. 1972.

TEACHERS

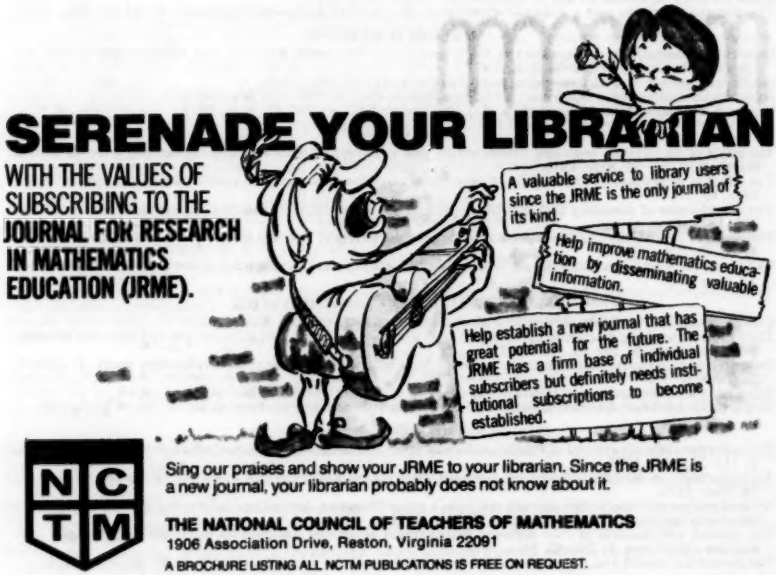
Diagnosing selected behavior characteristics of teachers of secondary school mathematics. 3: 7–20, Jan. 1972.
A model of classroom discourse for use in conducting aptitude-treatment interaction studies. 4: 161–69, May 1973.
Prospective elementary teachers' intensity and ambivalence of beliefs about mathematics and mathematics instruction. 3: 155–63, May 1972.
Ways mathematics teachers help students organize knowledge. 3: 21–31, Jan. 1972.

TESTS

Achievement monitoring via item sampling: A practical data-gathering procedure for formative evaluation. 4: 262–70, Nov. 1973.
Comments on the effect of activity-oriented instruction. 3: 183–85, May 1972.
Diagnosing selected behavior characteristics of teachers of secondary school mathematics. 3: 7–20, Jan. 1972.
Educational theory testing: A reply to Holz. 3: 186–88, May 1972.
The effects of test anxiety and success/failure on mathematics performance in grade eight. 4: 152–60, May 1973.

TRANSFER OF TRAINING

The effect of training on length on the performance of kindergarten children on nonstandard but related tasks. 3: 69–75, Mar. 1972.
Effects on transfer of training of constant versus varied training, group size, and ability level, in elementary school mathematics. 4: 20–25, Jan. 1973.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